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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES A. AMOS

Appeal 2010-001582
Application 10/600,084
Technology Center 2600

Before JOHN A. JEFFERY, THOMAS S. HAHN, and
DENISE M. POTHIER, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-9, 14-19, and 39-43. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant's invention is a hybrid Voice-over-Internet-Protocol (VoIP) telephone that can send and receive voice packets through either a base station of a personal area network or an access point of a wireless local area network, depending on the telephone's connectivity to either network. *See*

generally Spec. 11:9-19, 15:9-16:2. Claim 1 is illustrative with key disputed limitations emphasized:

1. A wireless voice over Internet Protocol telephone, comprising:
a wireless handset that comprises a wireless personal area network transceiver configured to communicate with a wireless personal area network, a wireless local area network transceiver configured to communicate with a wireless local area network, and a selecting device for selecting between the wireless personal area network transceiver and the wireless local area network transceiver;

wherein the wireless handset is in voice communication with a telephone controller, the telephone controller is configured to communicate with a base station coupled to the wireless personal area network and an access point coupled to the wireless local area network;

wherein the selecting device selects the wireless personal area network transceiver for routing the voice communication through the wireless personal area network when the wireless personal area network transceiver detects a wireless personal area network connection, otherwise the selecting device selects the wireless local area network transceiver;

wherein the selecting device is configured to send a signal to the telephone controller via the wireless local area network transceiver to route the voice communication for the wireless handset through the wireless local area network responsive to the wireless personal area network transceiver being unable to detect a wireless personal area network connection; and

wherein the selecting device is configured to send a signal to the telephone controller via the personal area network transceiver to route the voice communication for the wireless handset through the wireless personal area network responsive to reestablishing a connection with the wireless personal area network.

The Examiner relies on the following as evidence of unpatentability:

Leedom, Jr.	US 2001/0036835 A1	Nov. 1, 2001
Awater	US 2001/0010689 A1	Aug. 2, 2001
Bridgelall	US 2002/0085516 A1	July 4, 2002
Mohammed	US 2003/0119548 A1	June 26, 2003 (filed Apr. 2, 2002)

THE REJECTIONS

1. The Examiner rejected claim 39¹ under 35 U.S.C. § 112, ¶ 1 as failing to comply with the written description requirement. Ans. 3-4.²

2. The Examiner rejected claims 1-9, 14-19, and 39-43 under 35 U.S.C. § 103(a) as unpatentable over Bridgelall, Awater, Mohammed, and Leedom. Ans. 4-10.

THE WRITTEN DESCRIPTION REJECTION

The Examiner finds that Appellant did not have possession of the invention recited in claim 39 at the time the application was filed because Appellant's original disclosure does not describe an access point and a base station coupled to the same network. Ans. 3-4, 11-12.

Appellant argues that the Specification as filed discloses an access point and a base station coupled to the same network because it describes these devices as communicatively coupled to the same telephone controller, wherein the links between the devices collectively comprise a network. App. Br. 19-20; Reply Br. 2-4.

The issue before us, then, is as follows:

¹ Although claims 40-43 depend from independent claim 39, the Examiner nevertheless does not reject these dependent claims on this basis.

² Throughout this opinion, we refer to (1) the Appeal Brief filed February 27, 2009 (revised April 29, 2009); (2) the Examiner's Answer mailed August 7, 2009; and (3) the Reply Brief filed September 1, 2009.

ISSUE

Does Appellant's original Specification describe a "network" sufficient to show Appellant possessed the invention recited in claim 39 when the application was filed?

FINDINGS OF FACT (FF)

1. The Specification describes a backbone 306 connected to the Internet 318. The backbone can be any standard network, including a local area network (LAN), wide area network (WAN), Ethernet, internet, intranet, or a combination of networks. Incoming and outgoing data is transported over the backbone. Spec. 14:22-15:3. A phone controller 302 is connected to the backbone. Fig. 3. Incoming VoIP packets arrive at the phone controller. Spec. 15:3-8.

2. The phone controller 302 routes VoIP packets over either a wired LAN 308 to a base station 200, or over the backbone to an access point 304. Spec. 15:9-11. The phone controller is connected to the base station via the wired LAN, and to the backbone, which in turn is connected to the access point. Fig. 3.

PRINCIPLES OF LAW

To satisfy the written description requirement, the disclosure must reasonably convey to ordinarily skilled artisans that Appellant possessed the claimed invention as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

ANALYSIS

The written description rejection in this appeal turns on the meaning of the term “network.” A network is “[a] series of points connected by communication channels,” or “[a] group of computers connected together to facilitate the transfer of communication.”³ Thus, a network, in the broadest reasonable sense, does not require any particular hardware or software, or that the hardware or software be the same across the whole network. Further, a network does not require a single physical medium to which all the networked computers are connected. We find the Examiner’s rejection problematic because it relies on too narrow a definition of a network in finding that Appellant’s originally-filed Specification does not describe an access point and base station coupled to the same network. *See* Ans. 3-4.

Based on the above construction, Appellant’s originally-filed Specification describes a network to which an access point and a base station are coupled. Particularly, the Specification describes a phone controller communicatively coupled to both an access point and a base station via a backbone and a wired LAN, respectively, for routing VoIP packets to either the access point or base station. *See* FF 1-2. These respective links to the phone controller collectively comprise a network. Moreover, the backbone can be any standard network (FF 1), in which case the backbone and wired LAN could operate according to the same protocol. But even if they operated according to different physical layer protocols, the access point and base station are nevertheless both capable of Internet Protocol (IP) communications because they accept VoIP packets from the phone controller. *See* FF 2. The access point and base station are therefore part of

³ DICTIONARY OF COMMUNICATIONS TECHNOLOGY (Wiley 3d ed. 1998).

the same IP “network.” Accordingly, regardless of whether there are different physical links between the access point, base station, and telephone controller, or whether there are intervening components between these devices, they are nonetheless communicatively coupled to the same network.

We therefore find that Appellant’s originally-filed disclosure reasonably conveys to ordinarily skilled artisans that Appellant possessed the claimed “network.” Accordingly, we are persuaded that the Examiner erred in rejecting claim 39 as failing to comply with the written description requirement.

THE OBVIOUSNESS REJECTION

Regarding representative claim 1, the Examiner finds that Bridgelall discloses every recited feature except for (1) selecting the wireless personal area network transceiver for routing the voice communication through the wireless personal area network when the wireless personal area network transceiver detects a wireless personal area network connection, otherwise selecting the wireless local area network transceiver, and (2) sending a signal to the telephone controller via the personal area network transceiver to route the voice communication through the wireless personal area network. The Examiner cites Awater, Mohammed, and Leedom as teaching these features in concluding that the claim would have been obvious. Ans. 4-7.

Appellant argues that Bridgelall’s wireless handset does not send signals to route voice communications; rather, such signals originate within the network. App. Br. 22. Moreover, Appellant argues Bridgelall does not send a signal to a telephone controller via a wireless local area network transceiver to route a voice communication through a wireless local area

network. App. Br. 22-23. That is, during a call transfer from the wireless wide area network (WWAN) to the wireless local area network (WLAN) in Bridgelall, the transfer is said to be initiated through communications with the current transceiver—the WWAN transceiver—rather than the WLAN transceiver that takes over the call. App. Br. 24. Appellant argues that Bridgelall also does not send a signal to a telephone controller via a wireless personal area network transceiver to route a voice communication through a wireless personal area network because a call transfer to Bridgelall's WWAN is initiated through the WLAN, not through the WWAN transceiver. *Id.* Appellant argues that the other cited prior art fails to cure these deficiencies. Among other things, Appellant contends that Mohammed fails to remedy Bridgelall with respect to these call transfer features because (1) Mohammed includes a waiting period while making a handoff from one network to the next, and (2) the network infrastructure, rather than the wireless handset, performs the handoff. App. Br. 24-26.

The issues before us, then, are as follows:

ISSUES

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Bridgelall, Awater, Mohammed, and Leedom collectively would have taught or suggested:

(1) a selecting device of a wireless handset that sends a signal to a telephone controller via a wireless local area network transceiver to route a voice communication through a wireless local area network responsive to a wireless personal area network transceiver being unable to detect a wireless personal area network connection?

(2) the selecting device sends a signal to the telephone controller via the wireless personal area network transceiver to route a voice communication through the wireless personal area network responsive to reestablishing a connection with the wireless personal area network?

(3) Is the Examiner's reason to combine the teachings of the cited references supported by articulated reasoning with some rational underpinning to justify the Examiner's obviousness conclusion?

ADDITIONAL FINDINGS OF FACT

3. Bridgelall discloses a seamless vertical roaming (SVR) process wherein the decision to roam from a WWAN to a WLAN is based on the availability of a WLAN and the user's preference. Bridgelall ¶ 0065. A dual mode radio 1201 comprises a WWAN section "A" and a WLAN section "B" and is initially connected to a party "C" through a WWAN network 1205. The WWAN network is connected to a WLAN network 1215, which includes a gateway and access point. Bridgelall ¶ 0068; Fig. 12. The SVR process begins when an explicit call transfer (ECT) command is issued to the WWAN network to initiate a transfer to the WLAN gateway. Bridgelall ¶ 0069; Fig 12. The WWAN checks whether the WLAN gateway connected to radio B is answering the call. Radio B verifies the call is from radio A and signals to the WLAN gateway to accept the call. The WWAN in turn receives confirmation that the WLAN gateway accepted the call. Radio A disconnects, and the call continues between radio B and party C. Bridgelall ¶¶ 0070-74.

4. Bridgelall also discloses an SVR process for roaming from a WLAN to a WWAN, based on the availability of a WWAN. Bridgelall ¶

0075; Fig. 13. A dual mode radio 1301 requests that the WLAN gateway 1315 send an ECT command to WWAN network 1305. Bridgelall ¶ 0078; Fig. 13. The WWAN network checks whether radio A is answering the call, and if so, receives confirmation that radio A accepted the call. The WLAN gateway then transfers the call and drops the connection. The call continues between radio A and party C. Bridgelall ¶¶ 0079-83.

5. Mohammed discloses a seamless transition for a subscriber device 12 from a licensed wireless network, such as a cellular network 14, to an unlicensed wireless network that includes base station 18. Mohammed ¶ 0055; Fig. 1. When the subscriber device determines it is within range of base station 18, it registers with the base station. Mohammed ¶ 0057. The base station transmits a subscriber device present signal to a system server 24, which notes that the subscriber device is within the service area of the base station. Mohammed ¶ 0058. The system server contacts the cellular network to initiate a call to the base station and the base station begins transmitting to the subscriber device over the unlicensed wireless network. Mohammed ¶ 0059. The base station sends a handoff command to the subscriber device which causes the device to process information with its unlicensed wireless circuitry, and to turn off its licensed wireless circuitry. Mohammed ¶¶ 0061-62.

ANALYSIS

Based on the record before us, we find no error in the Examiner's obviousness rejection of representative claim 1 which recites, in pertinent part,

wherein the selecting device is configured to send a signal to the telephone controller via the wireless local area network transceiver to route the voice communication for the wireless handset through the wireless local area network responsive the wireless personal area network transceiver being unable to detect a wireless personal area network connection,

and "wherein the selecting device is configured to send a signal to the telephone controller via the personal area network transceiver to route the voice communication for the wireless handset through the wireless personal area network responsive to reestablishing a connection with the wireless personal area network."

We agree with the Examiner that Bridgelall's wireless handset initiates a call transfer from either of the WWAN or WLAN to the other network. *See* Ans. 14. In the case of roaming from the WWAN to the WLAN, Bridgelall issues an ECT command *to the WWAN* network to initiate a transfer. FF 3. In the opposite case, Bridgelall's dual mode radio *requests the WLAN* to send an ECT command to the WWAN. FF 4. Moreover, Bridgelall's Figures 12 and 13 show that the "Dual-Mode Radio sub-system requests roaming" in both cases. Accordingly, it is Bridgelall's wireless handset that initiates call transfers, regardless of whether other components in the system perform some transfer processes. *See* Ans. 13-14. Thus, Bridgelall discloses a wireless handset comprising a selecting device that sends a signal to route a voice communication, as claimed.

The Examiner, however, acknowledges that Bridgelall does not disclose initiating the call transfer to a new network via the transceiver for the old network. Ans. 15. But we agree with the Examiner that Mohammed teaches this feature. Mohammed's seamless transition process begins with the subscriber device registering with the base station of a new network. *See* FF 5. The base station of this new network then commences routing the call from the old network through signalling with a system server. *See id.*

Appellant's argument that Mohammed's handoff includes a waiting period (App. Br. 24) is not persuasive, as claim 1 does not preclude any time delay or overlap between service on the old network and new network. Further, Appellant's argument that Mohammed's subscriber device does not perform the handoff (App. Br. 25) is also without merit. First, claim 1 does not require the wireless handset perform an entire handoff process to a new network, rather it only requires the handset to initiate a transfer by sending "a signal . . . to route the voice communication." Second, although Mohammed's subscriber device sends the claimed signal when it registers with the base station (*see* Ans. 16), the Examiner nonetheless relies on Bridgelall for this signalling feature, as discussed above. Therefore, in view of Mohammed, it would have been obvious to an ordinarily skilled artisan to transfer a call from the WWAN to the WLAN in Bridgelall by signalling via the WLAN transceiver, instead of the WWAN transceiver, and vice versa. *See* Ans. 6, 16.

Further, Appellant's arguments that the cited prior art references are not combinable in the manner suggested by the Examiner (App. Br. 27-29) merely restate the claimed features allegedly missing from the collective teachings of Bridgelall, Awater, Mohammed, and Leedom, and are not

persuasive for the reasons discussed above. We are also not persuaded by Appellant's arguments that the Examiner failed to articulate a reason to combine the references or find that the resulting combination would have yielded predictable results. *See* App. Br. 29-33.

First, the Examiner clearly articulates a reason for combining the references:

It would have been obvious to one of ordinary skill in the art to recognize the handoff of Mohammed as an alternative to the apparatus of Bridgelall and Awater et al. for shifting the burden in processing call re-route from the first/old wireless network to the second/new wireless network in case of severed connection.

See Ans. 6; *see also* Ans. 16. In other words, in view of Mohammed, it would have been obvious to initiate re-routing a call through Bridgelall's WLAN network with the WLAN radio A, rather than with the WWAN radio B, and vice versa. The advantage to Mohammed's teaching would have been obvious to an ordinarily skilled artisan given Bridgelall's re-routing a call to a new network when there are "packet error rates, frequent rates scale back or a consistent signal strength degradation" on the old network. *See* Bridgelall, ¶ 0075. That is, initiating the call transfer through the new network, as Mohammed teaches, would be more successful in avoiding a dropped call if initiated by the new network transceiver instead of by the old network transceiver through the degrading connection to the old network.

Second, the Examiner's combination yields predictable results. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007) ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."). Bridgelall's existing transceivers, WLAN radio A and WWAN radio B, are capable of sending

signals to initiate call transfers, as previously discussed. *See* FF 3-4. The Examiner's proposed modification merely requires Bridgelall's transceivers to switch the criteria for when each transceiver initiates a call transfer. For example, the WLAN radio A transceiver would issue an ECT command to request roaming when a connection to a WLAN network is established, rather than when the WLAN network connection is lost. One would have found such result predictable because it could be accomplished through programming changes within the ability of an ordinarily skilled artisan. Appellant provides no evidence to the contrary, but rather argues that the resulting system would not meet the limitations of claim 1. App. Br. 31-32. However, the cited references collectively disclose the argued limitations of claim 1 for the reasons discussed above.

We are therefore not persuaded that the Examiner erred in rejecting claim 1, and also claims 2-9 not separately argued with particularity. Despite nominally arguing claims 14-19 and 39-43 separately, Appellant relies on similar arguments to those regarding claim 1. App. Br. 33-36. We are not persuaded by these arguments for the reasons previously discussed.

CONCLUSION

The Examiner erred in rejecting claim 39 under § 112, but did not err in rejecting claims 1-9, 14-19, and 39-43 under § 103.

ORDER

The Examiner's decision rejecting claims 1-9, 14-19, and 39-43 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

rwk